Servicehinweise für Schaltnetzteil: Gerät mit Netztrenntransformator betreiben. Primärseite des Schaltnetzteiles liegt an Netzpotential. Bei fehlender Sekundärspannung oder Takten des Netzteiles Sekundärstromkreise einzeln unterbrechen und Funktion überprüfen.
Suchschema bei Nichtschwingen des Sperrwandlers.

- ⟶ Anlaufspannung (Pin 9/5) < 8 V Anlauf über Di 616 u. R 616.
- ⟶ Referenzspannung (Pin 1) ca. 6 V
- ⟶ Startimpuls (Pin 4) ①
- ⟶ Basisstromansteuerung (Pin 7) ②

C 626 muß vor Wechsel des IC 631 entladen sein! Netzteilregelbereich 160 bis 260 V~

Service hints for switch-mode power supply: operate set with mains-isolating transformer (n. b. the primary side of the SM power supply is normally not isolated, if there is no secondary voltage or the power supply pulsates, disconnect the secondary circuits individually and check operation. Fault finding scheme if blocking function prevents oscillation:

- ⟶ Starting voltage (Pin 9/5) < 8 V, starting via Di 616 and R 616
- ⟶ Reference voltage (Pin 1) approx. 6 V
- ⟶ Start pulse (Pin 4) ①
- ⟶ Base current drive (Pin 7) ②

Before replacement of IC 631, C 626 must be discharged. Power supply range 160 to 260 V AC.

Avvertenze di Servizio dell'alimentatore: Alimentare l'apparecchio con un trasformatore separatore. Il lato primario dell'alimentatore è a potenziale di rete. Se viene a mancare la tensione del secondario o in caso di intervento ritmico dell'alimentatore, interrompere uno alla volta i circuiti dell secondario e controllarne la funzione. Se il trasduttore di interdizione non viene eccitato, ricercare il guasto secondo lo schema seguente:

- ⟶ Tensione di avviamento (pin 9/5) < 8 V. Avviamento tramite Di 616 e R 616.
- ⟶ Tensione di riferimento (pin 1) ca. 6 V.
- ⟶ Impulso di avviamento (pin 4) ①
- ⟶ Pilotaggio della corrente di base (pin 7) ②

Il C 626 deve essere scarico prima di cambiare l'IC 631! Campo di regolazione dell'alimentatore: 160 a 260 V ~.

Bei Eingriffen Schutzmaßnahmen für MOS-Bauteile beachten!

When handling MOS-circuits, always observe the MOS protection measures!

Adoperando componenti o circuiti MOS, osservarne le corrispondenti misure di protezione!

Die mit ⚠ bezeichneten Bauteile sind nach den Richtlinien des VDE bzw. IEC für die Gerätesicherheit und die mit ⚠ bezeichneten für die einwandfreie Gerätefunktion unbedingt notwendig. Im Ersatzfall dürfen nur Originalteile Verwendung finden.

The components marked ⚠ conform to VDE or IEC guidelines and are essential for safe operation of the set, while those marked ⚠ are required for correct operation. Use specified parts only when replacing.

I componenti ⚠ hanno la massima importanza per la sicurezza dell'apparecchio e sono conformi alle norme VDE o IEC e quelli ⚠ sono assolutamente necessari per il funzionamento perfetto dell'apparecchio. In caso di sostituzione impiegare quindi soltanto pezzi di ricambio originali.

Elektrolytkondensator
Electrolytic capacitor
Condens elettrolitico

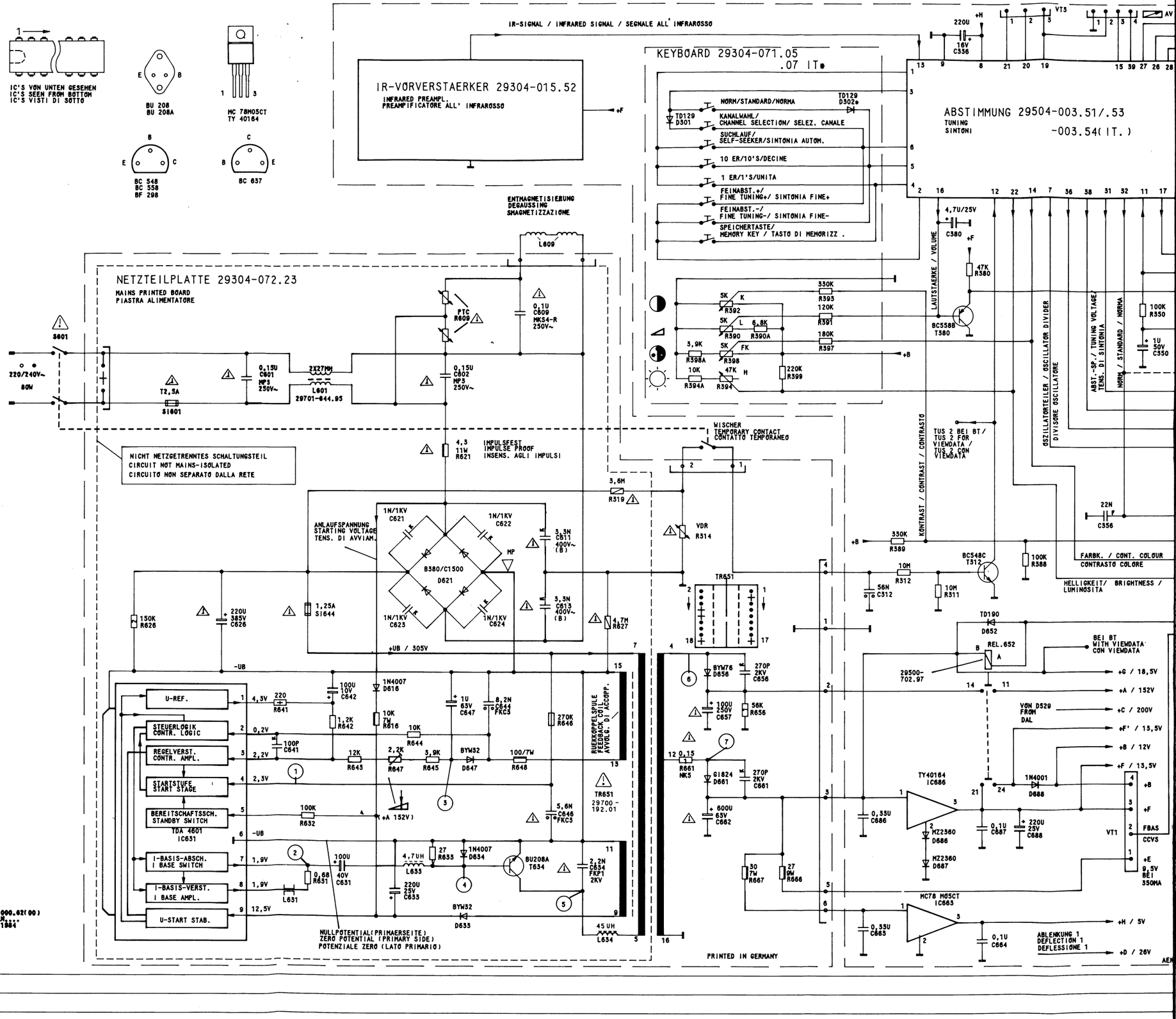
Folienkondensator
F = Foil capacitor
Condens a foglio
Keramikkondensator
K = Ceramic capacitor
Condens ceramico

≦160V=
250 V=
400 V=
630V=
1000V=

0,22W 0204 DIN
0,33W 0207 DIN
0,50W 0411 DIN
0,75W 0617 DIN
1W 0922 DIN
2W 0922 DIN

Widerstand nicht brennbar
Resistor not flammable
Resistenza non infiammabile

Drahtwiderstand
Wire resistor
Resistenza a filo



○● Netzschalter
Mains switch
Interruttore di rete

Regler + A
Control + A
Regolatore + A

Lautstärke
Volume
Volume

Farbkontrast
Colour contrast
Contrasto colore

Helligkeit
Brightness
Luminosita

Kontrast
Contrast
Contrasto

ABSTIMMUNG 29504-003.51/.53
TUNING
SINTONI
-003.54(IT.)

LED-PLATTE
29304-013.51/.52
LED BOARD
PIASTRA LED

ABLENKUNG 29504-007.05
DEFLECTION
DEFLESSIONE

KABEL-TUNER/ZF 29504-001.73 -021.85(P/S)
CABLE TV TUNER IF
TUNER TV CAVO FI

FARB / RGB 29504-005.33
COLOUR / RGB
COLORE / RVB

P/S-TRANSCODER 29304-06.31

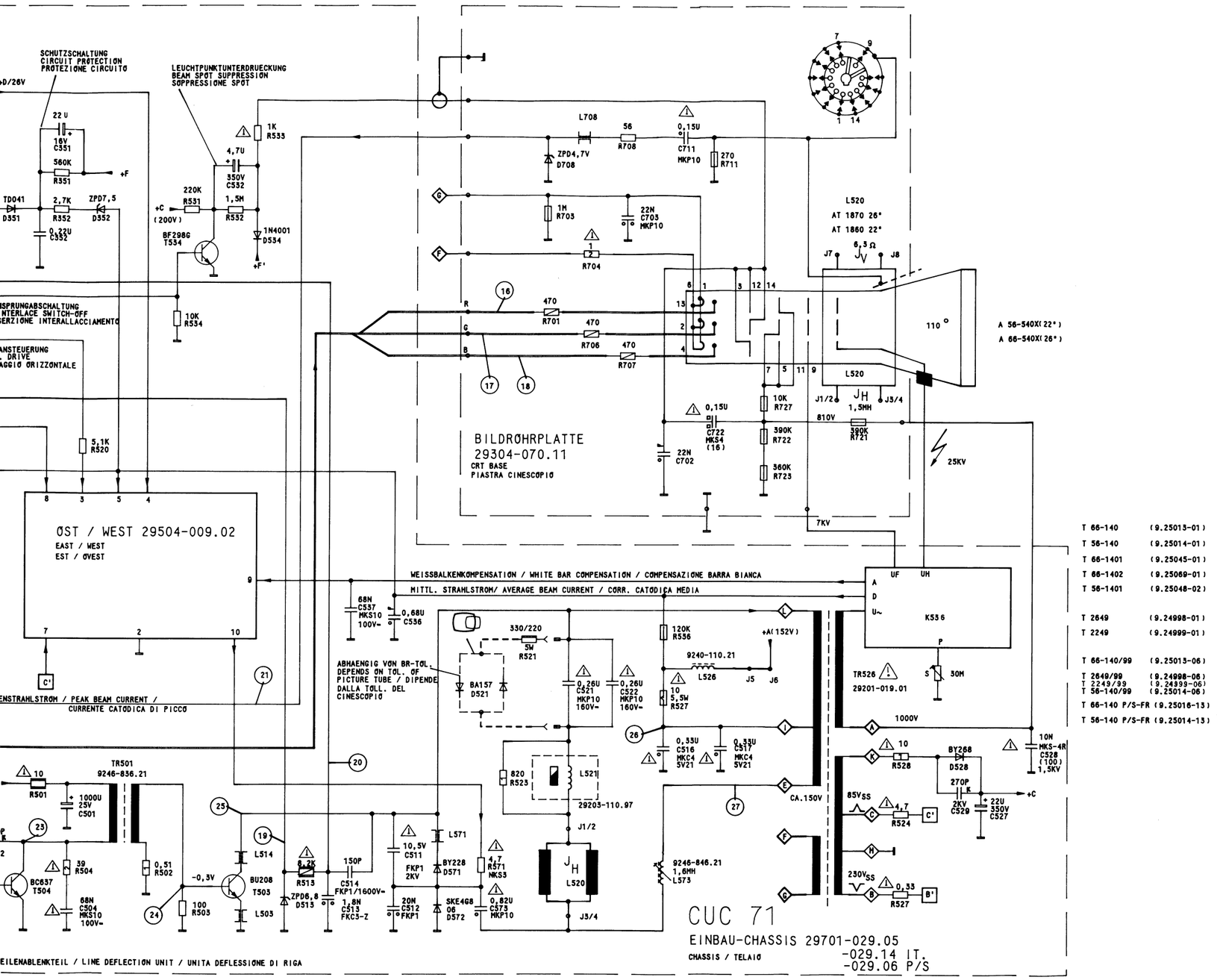
TDA 1905
IC 365

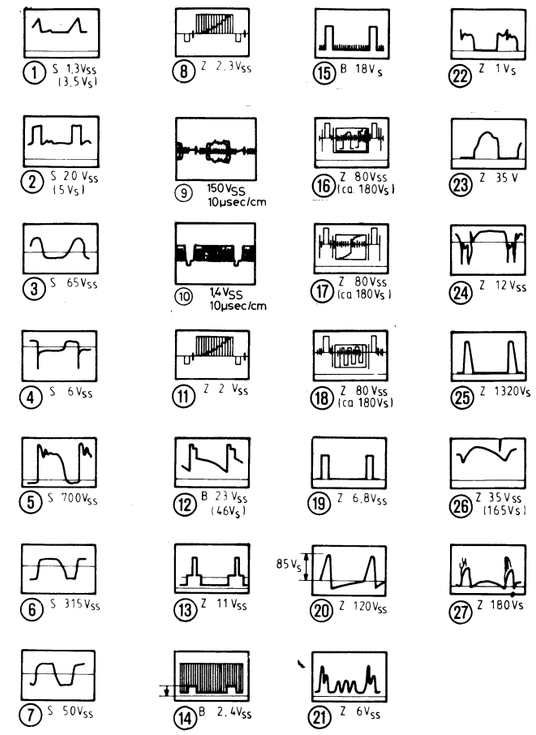
OST / WEST 29504-009.02
EAST / WEST
EST / OVEST

BILDRÖHRPLATTE
29304-070.11
CRT BASE
PIASTRA CINESCOPIO

CUC 71
EINBAU-CHAS
CHASSIS / TELAIO

AV ENA
CLK
DATA
VT3
+H
+F
+F'
+8
+D/26V
+G / 18,5V
+A / 152V
+C / 200V
+F' / 13,5V
+8 / 12V
+F / 13,5V
+H / 5V
+D / 26V
+E 9,5V BEI 350MA
FBAS
CCVS
VT1
VT2
UHF
VHF
(VIDEO)
(NF/AF/BF)
(TUNER)
AV-BUCHSE
AV SOCKET
PRESA AV
AV-SCHALTSP. / AV SWITCHING VOLTAGE / TENS. DI COMMUTAZ. AV
STUMM-SCHALTUNG BEI BTX
SOUND MUTE FOR VIEWD.
SILENZ. TO CON VIEWD.
KOINZIDENZ/ COINCIDENCE/ COINCIDENZA
SCHUTZSCHALTUNG
CIRCUIT PROTECTION
PROTEZIONE CIRCUITO
LEUCHTPUNKTUNTERDRUECKUNG
BEAM SPOT SUPPRESSION
SOPPRESSIONE SPOT
ZEILENSPRUNGABSCHALTUNG
LINE INTERLACE SWITCH-OFF
DISINSERZIONE INTERALLACCIAMENTO
HOR.-ANSTEUERUNG
HORIZ. DRIVE
PILOTAGGIO ORIZZONTALE
DATEN-SCHALTER
DATA SWITCH
COMMUT. DATI
BEI BT-BRUECKE AUFTRENNEN
FOR VIEWDATA OPEN THE BRIDGE
CON VIEWDATA APRIRE IL PONTICELLO
SYNC. ZUM BT
SYNC. TO VIEWDATA
SINC. AL VIEWD.
SYNC. VOM BT
SYNC. FROM VIEWD.
SINC. DAL VIEWDATA
BILDAUST.-IMP./ FRAME BLANKING PULSE
IMP. SOPPR. QUADRO
SSC
WEISSBALKENKOMPENSATION / WHITE BAR COMPENSATION / COMPENSAZIONE BARRA BIANCA
MITTL. STRAHLSTROM/ AVERAGE BEAM CURRENT / CORR. CATODICA MEDIA
ABHAENGIG VON BR-TOL.
DEPENDS ON TOL. OF
PICTURE TUBE / DIPENDE
DALLA TOLL. DEL
CINESCOPIO
SPITZENSTRAHLSTROM / PEAK BEAM CURRENT /
CORRENTE CATODICA DI PICCO
ZEILENABLENKTEIL / LINE DEFLECTION UNIT / UNITA DEFLESSIONE DI RIGA
ZEILENTR.-ANSCHL. V. UNTEN GESEHEN
LINE TRANSF.CONN. BOTTOM VIEW.
COLLEG. TRASF. DI RIGA VISTI DA SOTTO.
AENDERUNGEN VORBEHALTEN / ALTERATIONS RESERVED/ CON RISERVA DI MODIFICHE
LAUTSTAERKE / VOLUME
OSZILLATORTEILER / OSCILLATOR DIVIDER
DIVISORE OSCILLATORE
ABST.-SP./ TUNING VOLTAGE
TENS. DI SINTONIA
NORM / STANDARD / NORMA
KONTRAST / CONTRAST / CONTRASTO
FARBK. / CONT. COLOUR
CONTRASTO COLORE
HELLIGKEIT/ BRIGHTNESS / LUMINOSITA
TUS 2 BEI BT / TUS 2 FOR VIEWDATA / TUS 2 CON VIEWDATA
BEI BT WITH VIEWDATA CON VIEWDATA
VON D529 FROM DAL
TON BEI BTX SOUND WITH VIEWDATA AUDIO CON VIEWDATA
ABLENKUNG 1 DEFLECTION 1 DEFLESSIONE 1





Oszillogramme aufgenommen mit Video-Generator.
Oszillogramm s photographed with video generator.
Gli oszillogrammi sono stati fotografati con generatore video.

GRUNDIG

CUC 71

T 56-140	(25014)
T 56-1401	(25048)
T 56-140 VT	(25014)
T 56-140 P/S FR	(25014)
T 66-140	(25013)
T 66-1401	(25045)
T 66-1402	(25045)
T 66-140 P/S FR	(25013)

LED - Platte

Keyboard

Suchl.

10er

1er

D 301

Netzteilplatte

BR-PLATTE

Masse

Tuner ZF10

ABSTIMMUNG

ABLENKUNG

OST/WEST

FARB/RGB

TUNER/ZF

Kaskade

Abst.7

REL 652

29304-
568 12/2L(00)
EDT 29304-
558 12

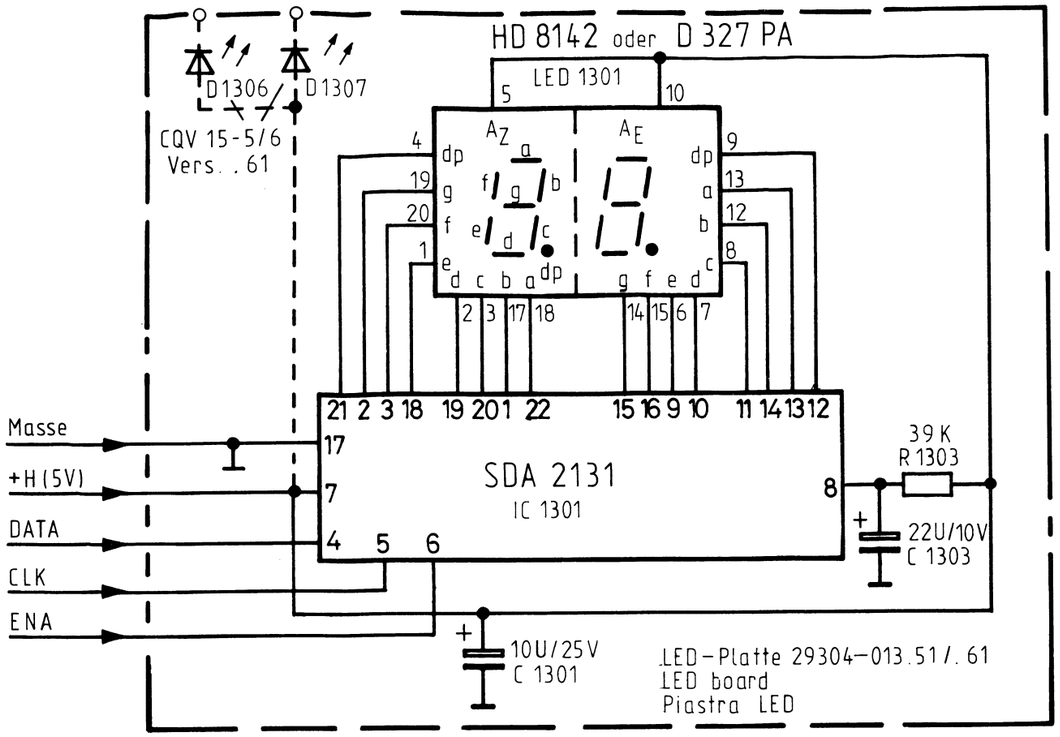
Masse
+H(5V)
DATA
CLK
ENA

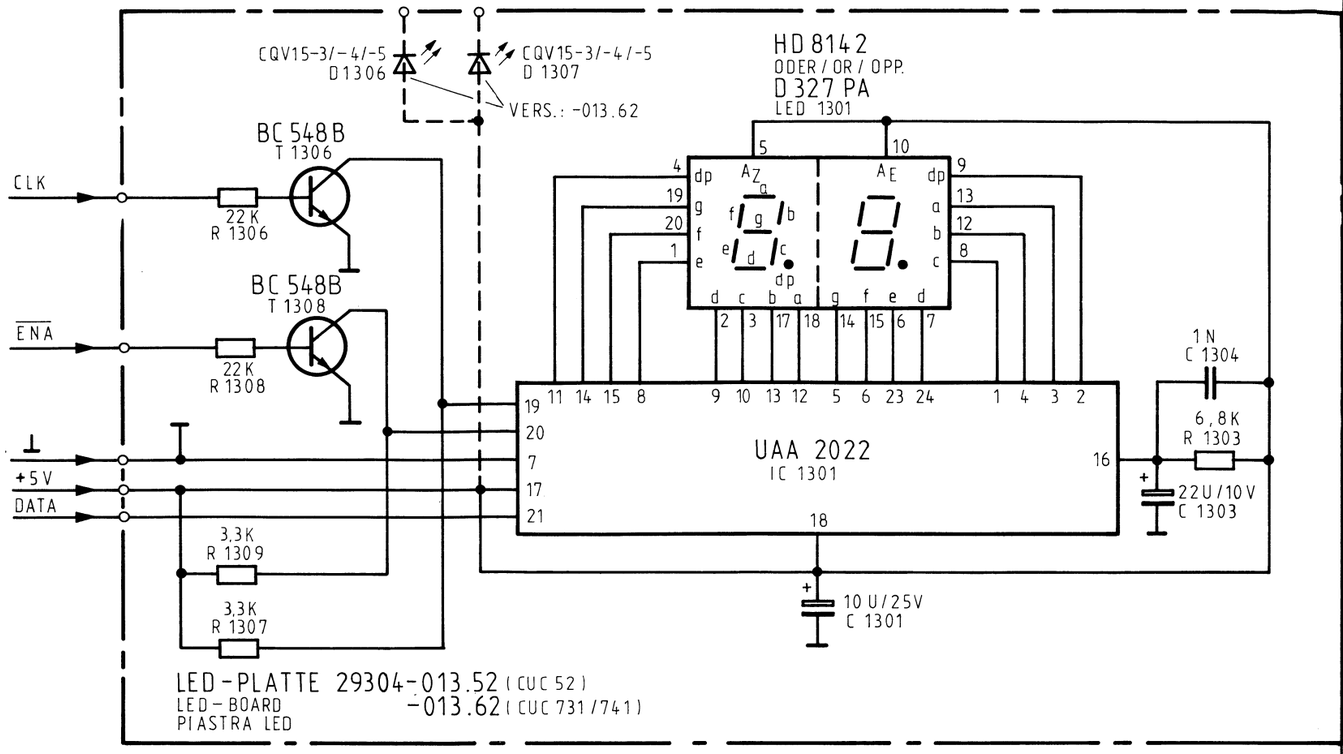
D1306
D1307
CQV 15-5/6
Vers. .61

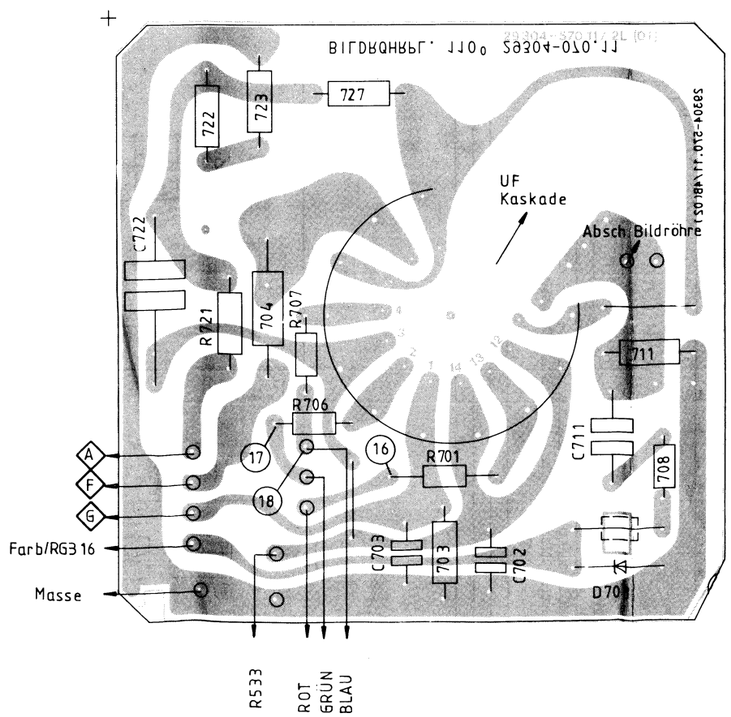
HD 81
LED
SDA 2
IC 13
10U/
C 13

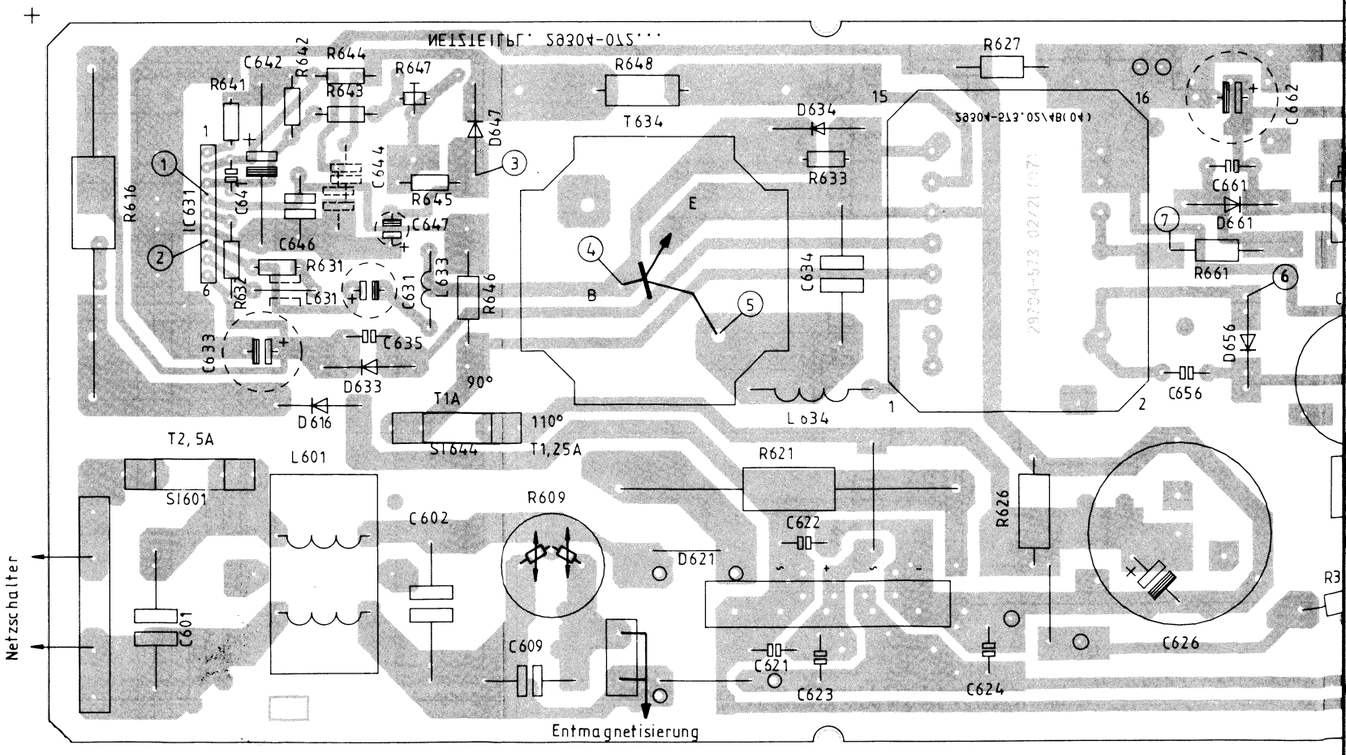
Farb/RG3 16
Masse

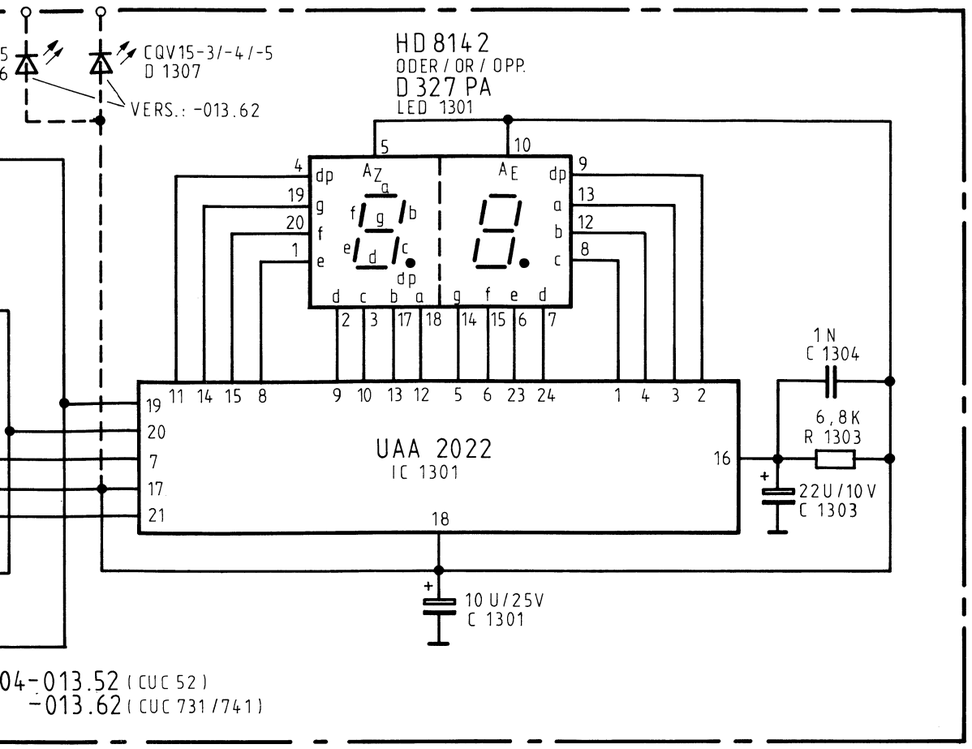
R533
ROT
GRÜN
BLAU


HD 8142 oder D 327 PA
LED 1301
D1306
D1307
CQV 15-5/6
Vers. .61
SDA 2131
IC 1301
Masse
+H(5V)
DATA
CLK
ENA
39 K
R 1303
22U/10V
C 1303
10U/25V
C 1301
LED-Platte 29304-013.51/.61
LED board
Piastra LED

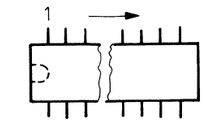

CQV15-3/-4/-5
D1306
CQV15-3/-4/-5
D 1307
VERS.: -013.62
HD 8142
ODER/OR/OPP.
D 327 PA
LED 1301
BC 548B
T 1306
BC 548B
T 1308
CLK
ENA
22 K
R 1306
22 K
R 1308
3,3K
R 1309
3,3K
R 1307
UAA 2022
IC 1301
1 N
C 1304
6,8K
R 1303
22U/10V
C 1303
10 U/25V
C 1301
LED-PLATTE 29304-013.52 (CUC 52)
LED-BOARD -013.62 (CUC 731/741)
PIASTRA LED


UF
Kaskade
Absch. Bildröhre
Farb/RGB 16
Masse
R533
ROT
GRÜN
BLAU

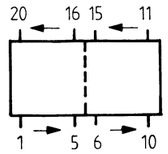

T2,5A
T1,25A
T1A
110°
90°
L601
L634
T634
Netzschalter
Entmagnetisierung



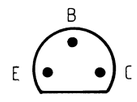
04-013.52 (CUC 52)
-013.62 (CUC 731 / 741)

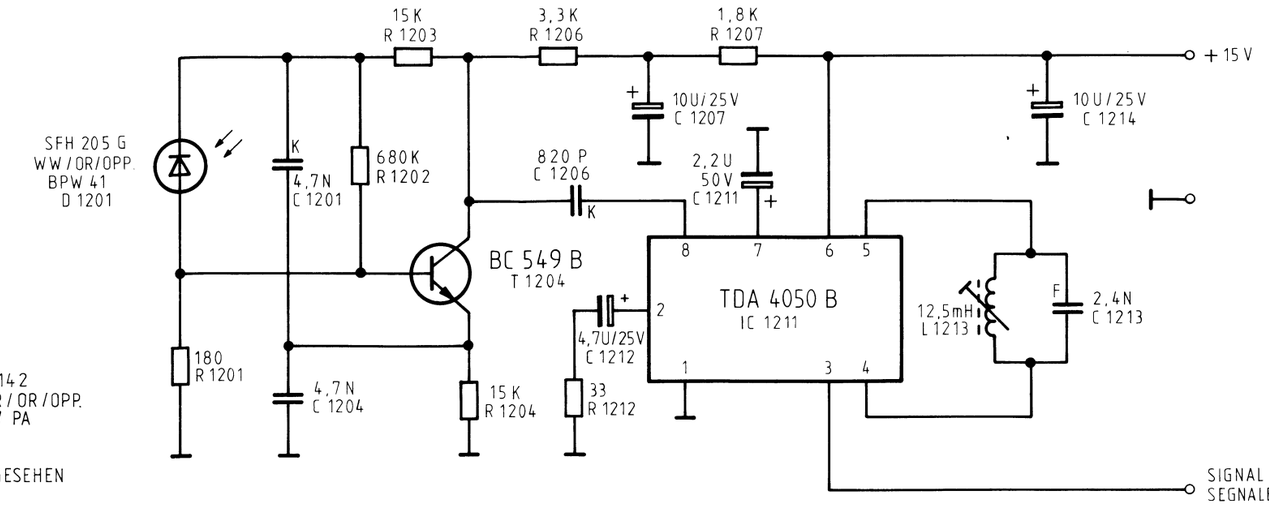


IC VON UNTEN GESEHEN
IC SEEN FROM BOTTOM
IC VISTO DA SOTTO

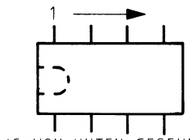


LED ANZEIGE VON OBEN GESEHEN
LED INDICATO TOP VIEW
INDICATORE LED VISTO DA SOPRA

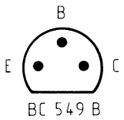


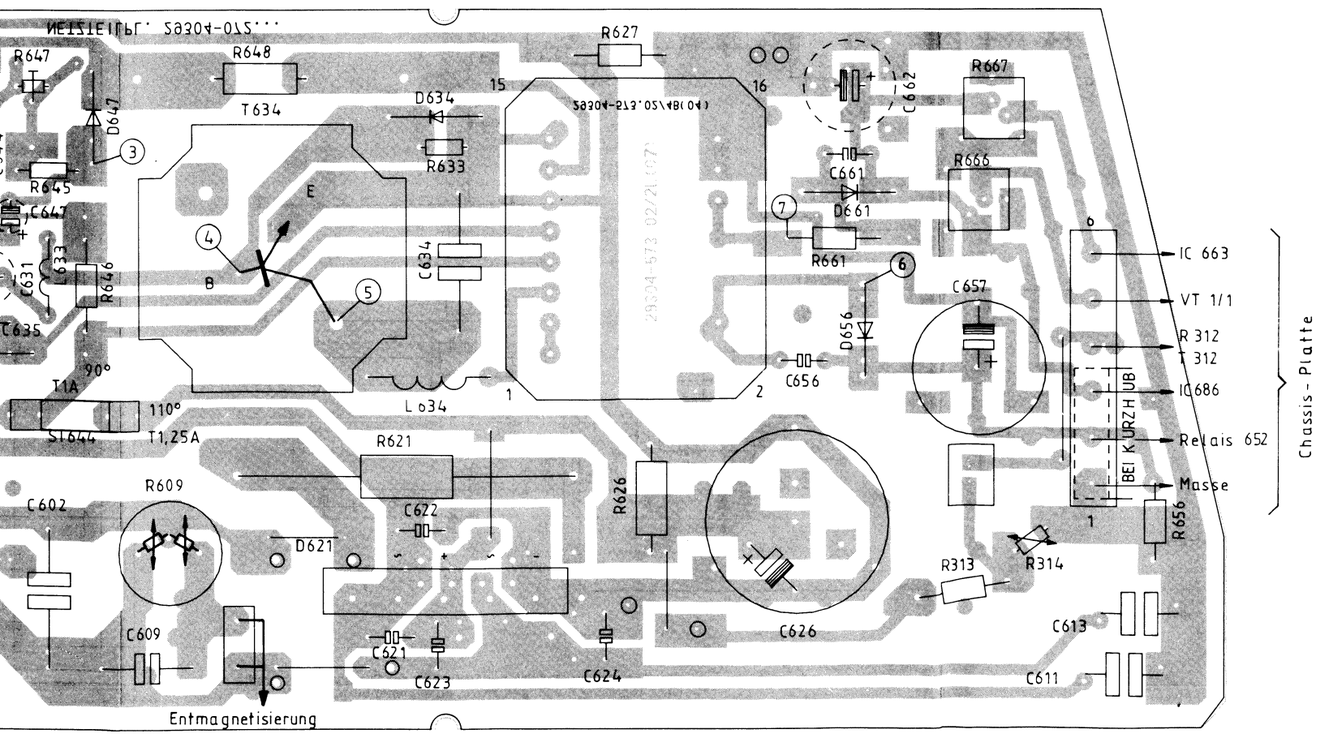


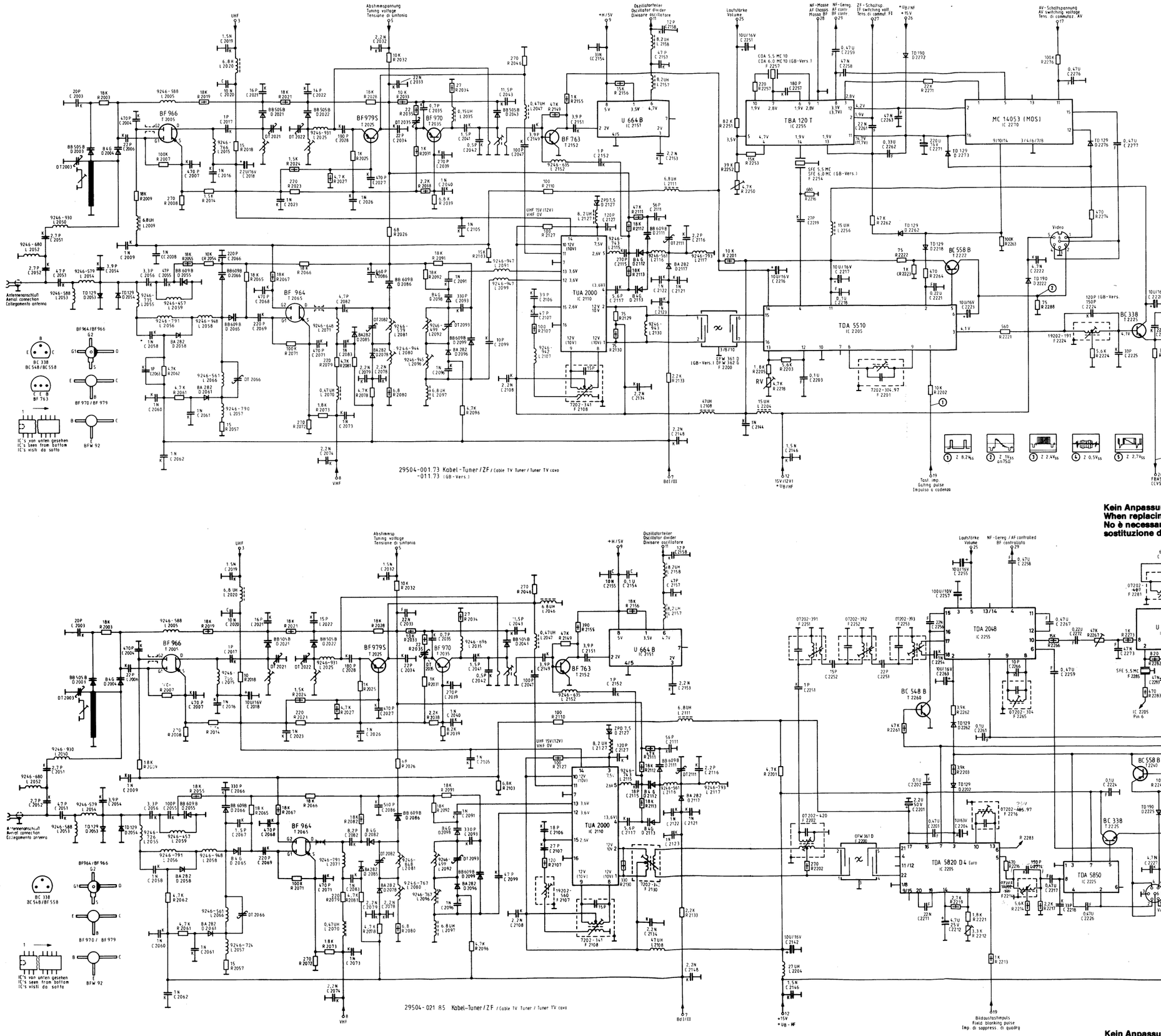
29304-015.52 IR-VORVERST. / INFRARED PREAMPL. / PREAMPL. ALL'INFRAROSSO

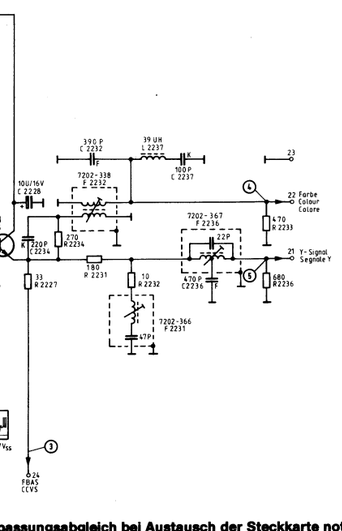


IC VON UNTEN GESEHEN
IC SEEN FROM BOTTOM
IC VISTO DA SOTTO

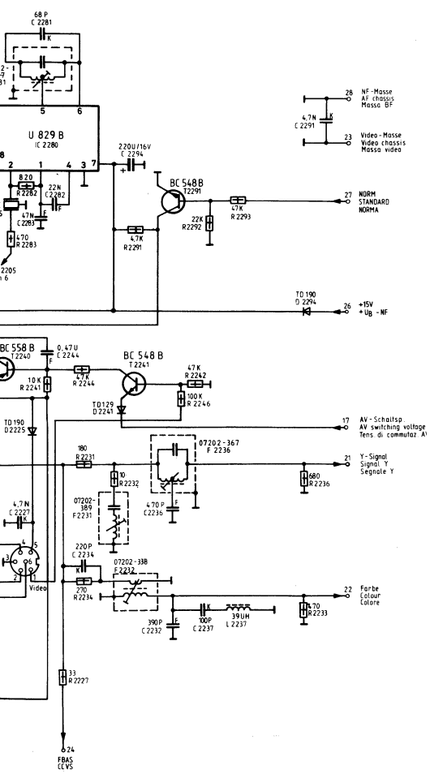




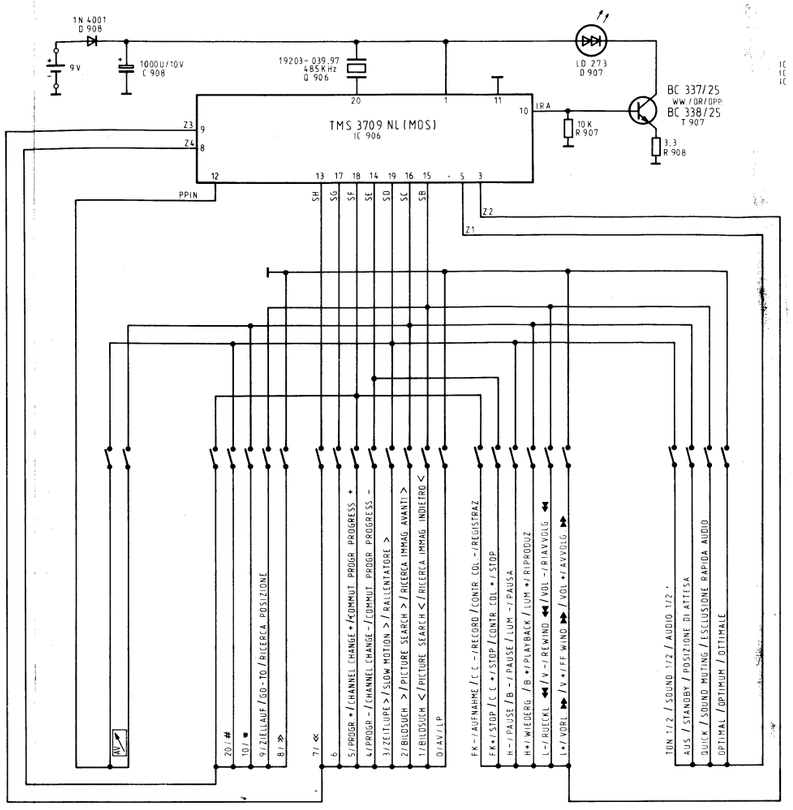

29504-001.73 Kabel-Tuner/ZF / Cable TV Tuner / Tuner TV cavo
-011.73 (GB-Vers.)
29504-021.85 Kabel-Tuner/ZF / Cable TV Tuner / Tuner TV cavo
Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
No è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto
IC's von unten gesehen
IC's seen from bottom
IC's visti da sotto
BC 338 BC 548/BC 558
BF 963/BF 966
BF 970/BF 979
BFW 92
TDA 5510
TUA 2000
TDA 5820 D4 Euro
TDA 5850
TDA 2048
U 829 B
MC 14053 (MOS)
TBA 120 T
U 664 B
BF 966
BF 970
BF 979S
BF 763
BF 964
BC 558 B
BC 548 B
BC 568 B
BC 338
Video
Tast imp.
Gating pulse
Impulso a cadenza
Bildaustastimpuls
Field blanking pulse
Imp. di soppress. di quadro
FBAS
CVS
Y-Signal
Signal Y
Segnale Y
Farbe
Colour
Colore
NORM
STANDARD
NORMA
AV-Schaltsp
AV switching voltage
Tens. di commutaz. AV
NF-Masse
AF chassis
Massa BF
Video-Masse
Video chassis
Masse video
+15V
+Ub-NF
Bd I/III
Bd III
VHF
UHF
Antennenanschluß
Aerial connection
Collegamento antenna
1N 4001
D 908
9V
29304-069.13 TB
IC VON UNTEN GESEHEN
IC SEEN FROM BOTTOM
IC VISTO DI SOTTO
BTX/VIDEOTEXT
29304-064.22



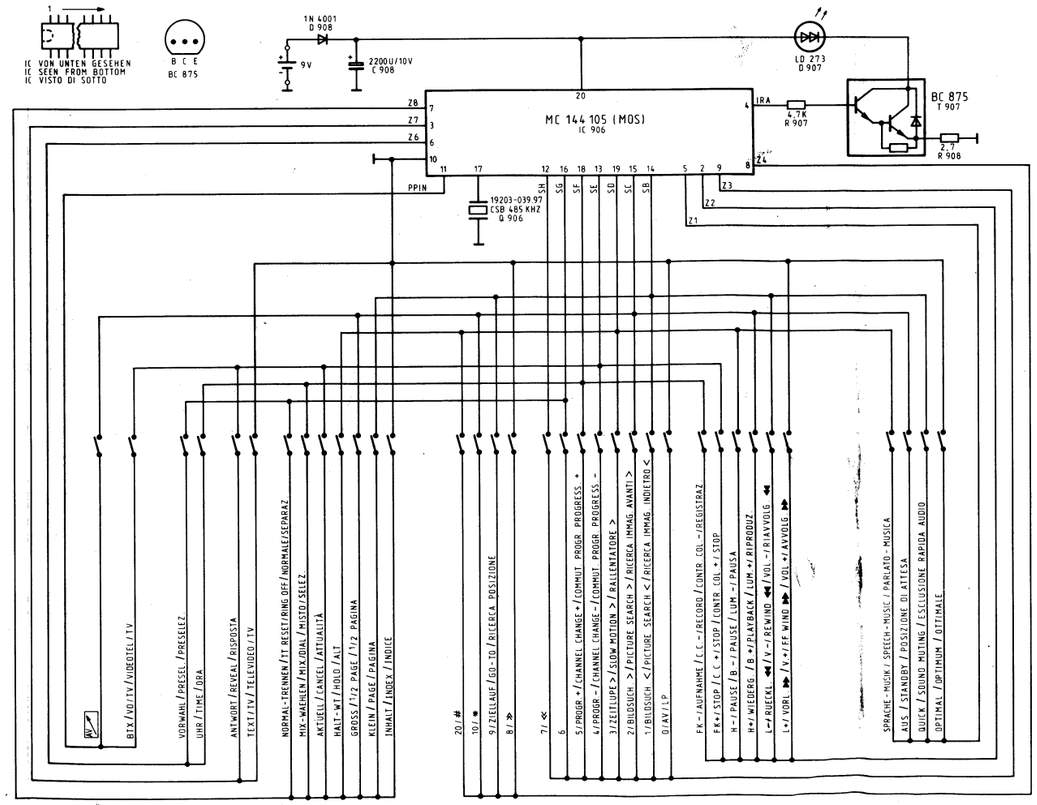
passungsabgleich bei Austausch der Steckkarte notwendig
placing the plug-in board, no alignment is necessary
cessaria nessuna taratura di adattamento dopo la
one di una scheda ad innesto



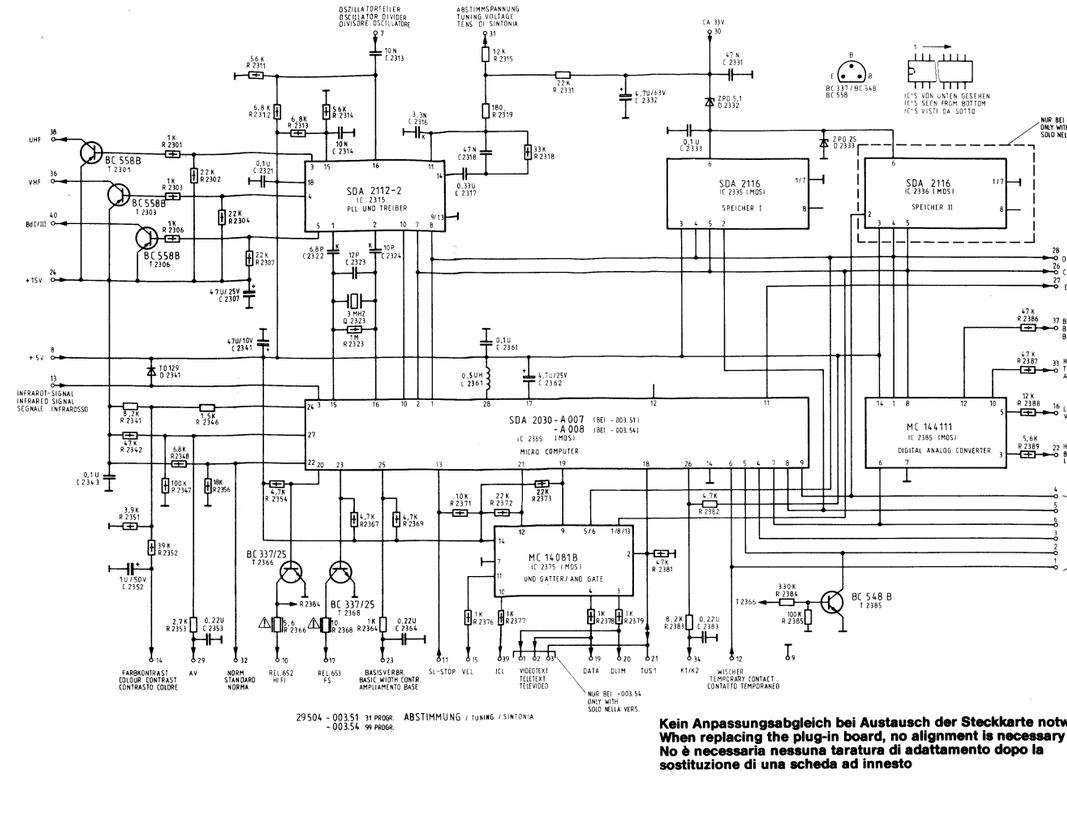
passungsabgleich bei Austausch der Steckkarte notwendig
placing the plug-in board, no alignment is necessary
cessaria nessuna taratura di adattamento dopo la
one di una scheda ad innesto


1N 4001 D 908
9V
1000U/10V C 908
19203-039.97 485 KHz Q 906
LD 273 D 907
BC 337/25 ww/or/opp BC 338/25 T 907
TMS 3709 NL (MOS) IC 906
10 K R 907
3,3 R 908
IRA
PPIN
Z1
Z2
Z3
Z4
SH SG SF SE SD SC SB
20/ # 10/ * 9/ZIELAUF/GO-TO/RICERCA POSIZIONE 8/ & 7/ ≪ 6 5/PROGR +/CHANNEL CHANGE +/COMMUT PROGR PROGRESS + 4/PROGR -/CHANNEL CHANGE -/COMMUT PROGR PROGRESS - 3/ZEITLUPE >/SLOW MOTION >/RALLENTATORE > 2/BILDSUCH >/PICTURE SEARCH >/RICERCA IMMAG AVANTI > 1/BILDSUCH </PICTURE SEARCH </RICERCA IMMAG INDIETRO < 0/AV/I/P
FK-/AUFNAHME/C C-/RECORD/CONTR COL-/REGISTRAZ
FK+/STOP/C C+/STOP/CONTR COL+/STOP
H-/PAUSE/B-/PAUSE/LUM-/PAUSA
H+/WIEDERG/B+/PLAYBACK/LUM+/RIPRODUZ
L-/RUECKL/V-/REWIND/VOL-/RIAVVOLG
L+/VORL/V+/FF WIND/VOL+/AVVOLG
TON 1/2/SOUND 1/2/AUDIO 1/2
AUS/STANDBY/POSIZIONE DI ATTESA
QUICK/SOUND MUTING/ESCLUSIONE RAPIDA AUDIO
OPTIMAL/OPTIMUM/OTTIMALE

29304-069.13 TELEPILOT 390

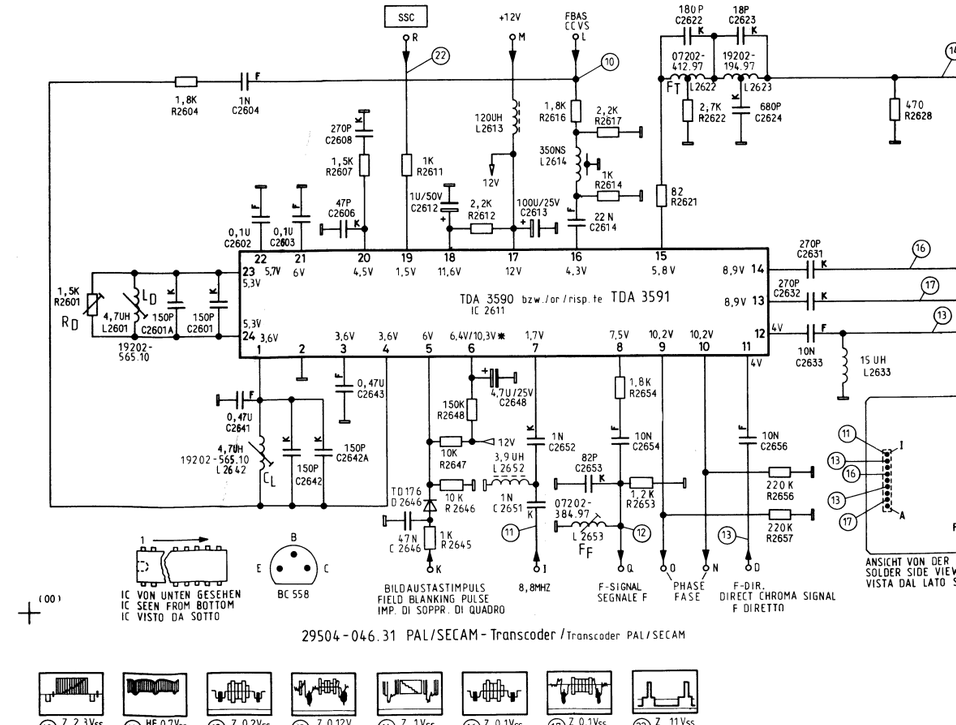


29304-064.22 TELEPILOT 590 VT/TT

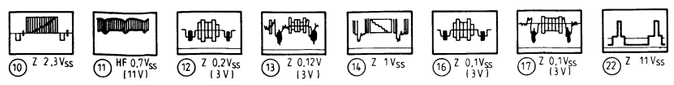


29504-003.51 31 PROGR. ABSTIMMUNG / TUNING / SINTONIA
-003.54 99 PROGR.

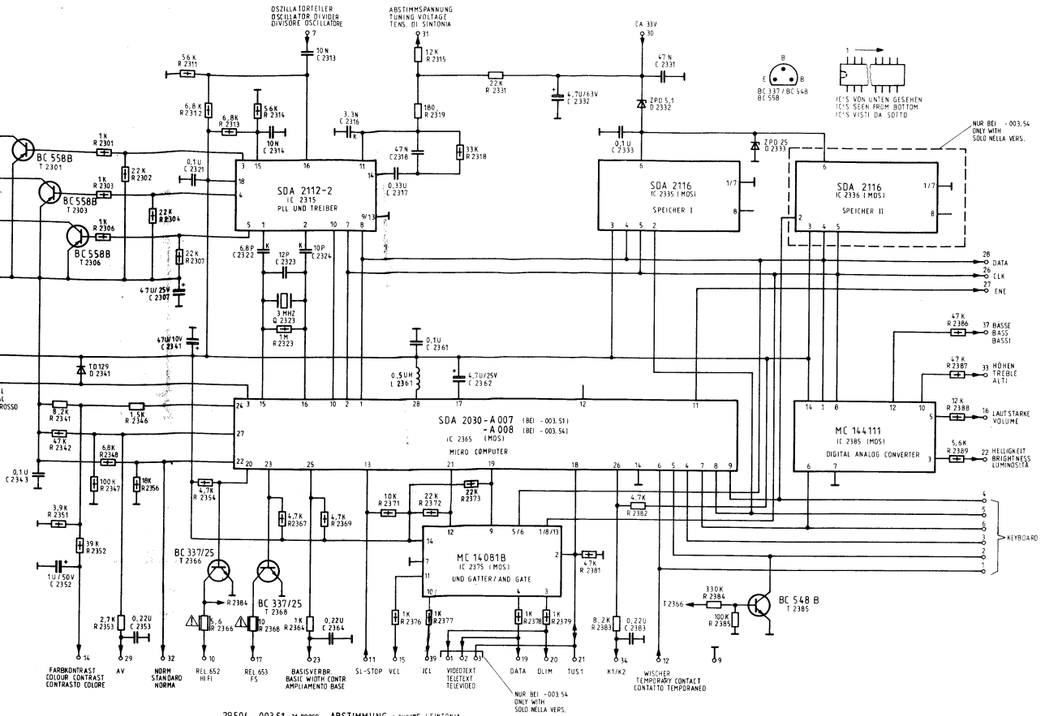
Kein Abgleich bei Austausch der Steckkarte notwe
When replacing the plug-in board, no alignment is necessary
No è necessaria nessuna taratura di adattamento dopo la
sostituzione di una scheda ad innesto



29504-046.31 PAL/SECAM-Transcoder / Transcoder PAL/SECAM

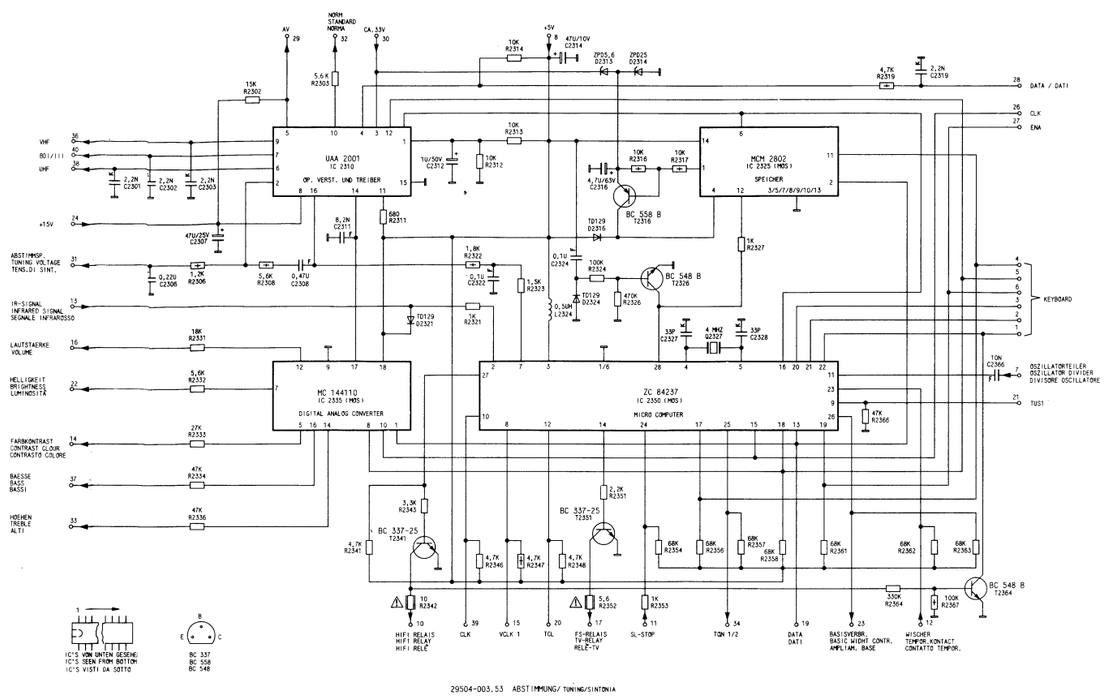


Spannungen gemessen mit Digitalvoltmeter b. Secam-Testbild. Spannungen mit ✱ gemessen mit Digitalvoltmeter b. PAL.
Voltages measured with digital voltmeter and Secam-test picture. Voltages with ✱ are measured with digital voltmeter and PAL.
Tens. misurate con voltmetro digitale in presenza di monoscopio Secam. Tens. con ✱ misurate con voltmetro digitale in presenza di monoscopio PAL.



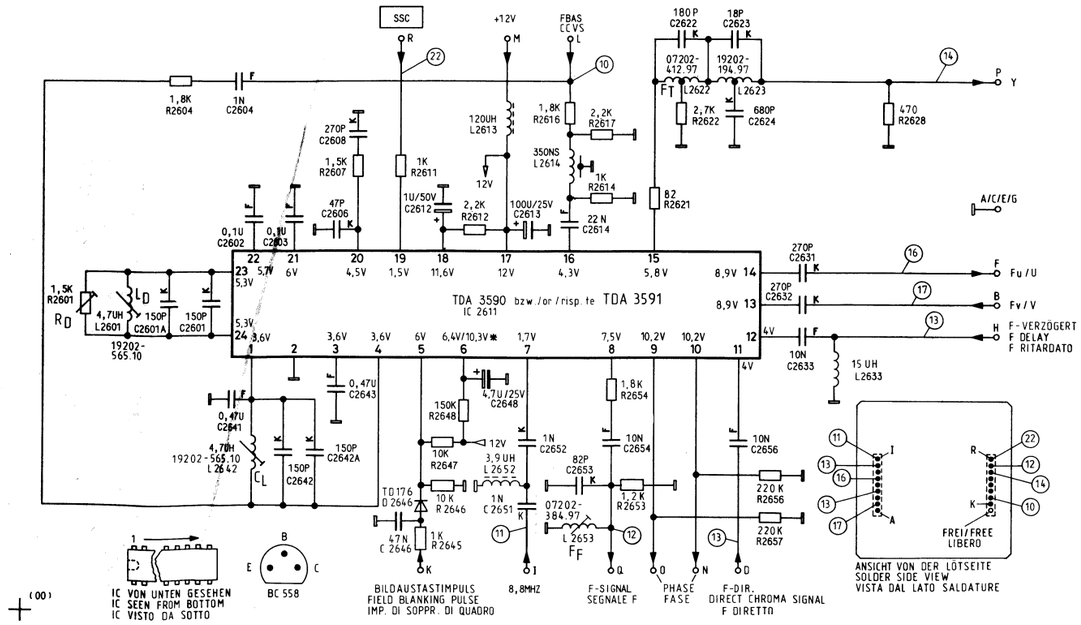
29504-003.51 31 PROGR. ABSTIMMUNG / TUNING / SINTONIA
-003.54 99 PROGR.

Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
No è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto

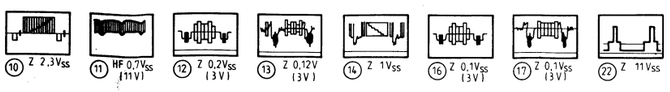


29504-003.53 ABSTIMMUNG/ TUNING/SINTONIA

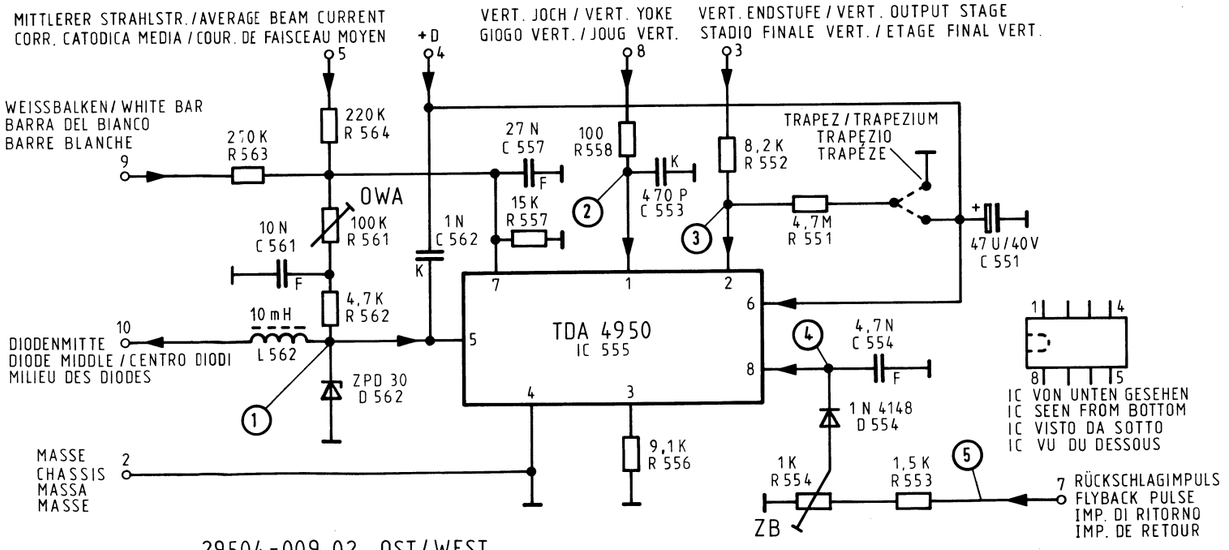
Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
No è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto



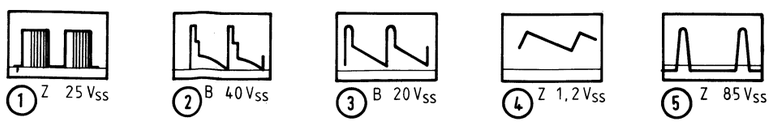
29504-046.31 PAL/SECAM-Transcoder / Transcoder PAL/SECAM



Spannungen gemessen mit Digitalvoltmeter b. Secam-Testbild. Spannungen mit * gemessen mit Digitalvoltmeter b. PAL.
Voltages measured with digital voltmeter and Secam-test picture. Voltages with * are measured with digital voltmeter and PAL.
Tens. misurate con voltmetro digitale in presenza di monoscopio Secam. Tens. con * misurate con voltmetro digitale in presenza di monoscopio PAL.

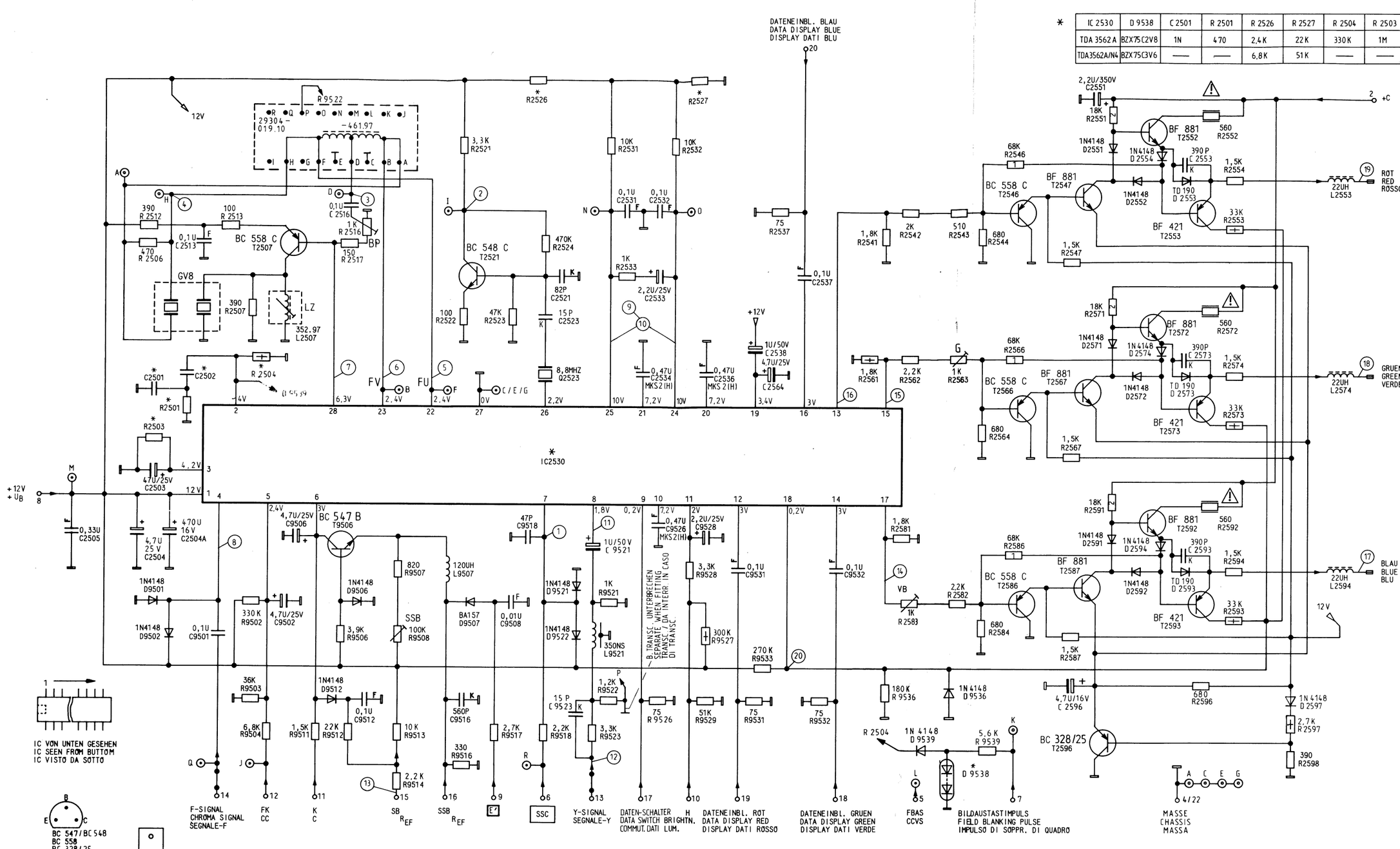


29504-009.02 OST/WEST
EAST/WEST / EST/OVEST
EST/OUEST

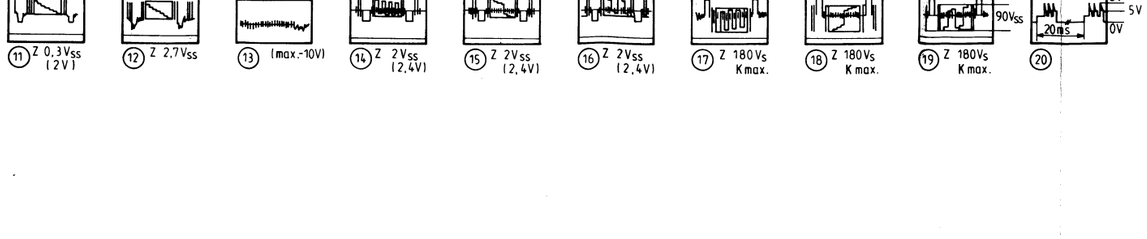


Kein Anpassungsabgleich bei Austausch der Steckkarte notwendig
When replacing the plug-in board, no alignment is necessary
No è necessaria nessuna taratura di adattamento dopo la sostituzione di una scheda ad innesto

*	IC 2530	D 9538	C 2501	R 2501	R 2526	R 2527	R 2504	R 2503	C 2502
	TDA 3562 A	BZX75C2V8	1N	470	2,4K	22K	330K	1M	0,33U
	TDA3562A/N4	BZX75C3V6	—	—	6,8K	51K	—	—	0,33U



29504-005.33 FARB/RGB / COLOUR/RGB / COLORE/RVB



Oszillogramme gemessen mit Farbbalkentestbild.
Oscillograms measured with colour bar test picture.
Gli oscillogr. sono misurati con monoscopio a barre colore

Gleichsp. gemessen b. (H) nominal, (FK) nominal, (K) maximal.
DC voltages measured at nominal brightness, nominal colour contrast and max. contrast
Tensioni continue misurate con lum. nominale, contr. colore nominale e contr. al massimo.

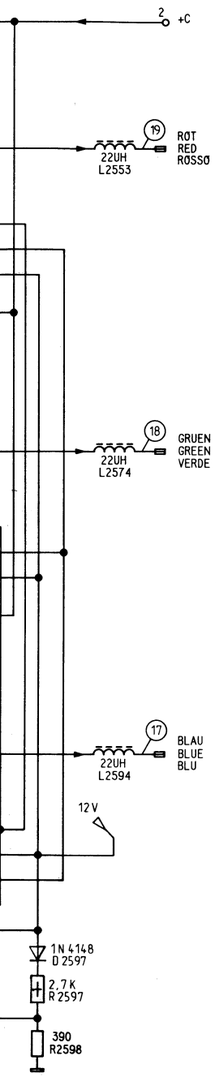
Anpassungsab
Matching align
Taratura di ad

1) Weißabgleich
– FuBK-Testb
– ◑ min, ☼ nor
– Regler V_R u
sind.
2) Sperrpunktab
Eine manuell
kelstromrege
Kontrolle des
– FuBK-Testb
– Weißabglei
– ◑ min, ☼ nor
– Tastkopf ar
die Schwar
– Tastkopf ar
den höchst
Richtwerte
– bei Geräter
– bei Geräter
3) Einstellungen
– FuBK-Testb
– ◑ nom, ☼ no
– Am IC TDA
– Mit Trimme
brücken en
– Tastkopf ar
Mit Regler

1) White level a
– Inject colou
– Set ◑ to n
– Adjust V_R a
2) Cut-off point
A manual adj
matic dark cu
Checking the
– Inject colou
– Check whit
– Set ◑ to n
– Attach prob
note of the
– Attach prob
adjust to 16
Standard v
– for sets ≦ 2
– for sets > 2
3) Colour oscilla
– Inject colou
– Adjust to ◑
– On the IC
– With trimm
circuits.
– Attach prob
– With contro

1) Taratura del b
– Applicare u
– Regolare ◑
– Con i regola
dei grigi.
2) Taratura del p
Una regolazio
una regolazio
Controllo del
– Applicare u
– Controllare
– Regolare ◑
– Collegare la
ed annotare
– Collegare la
valore del r
Valori orien
– per apparec
– per apparec
3) Regolazioni d
– Applicare u
– Regolare ◑
– Cortocircuit
– Fermare le
– Collegare la
Con il regol
-(B-y).

26	R 2527	R 2504	R 2503	C 2502
	22K	330K	1M	0,33U
	51K	——	——	2 F 0,33U



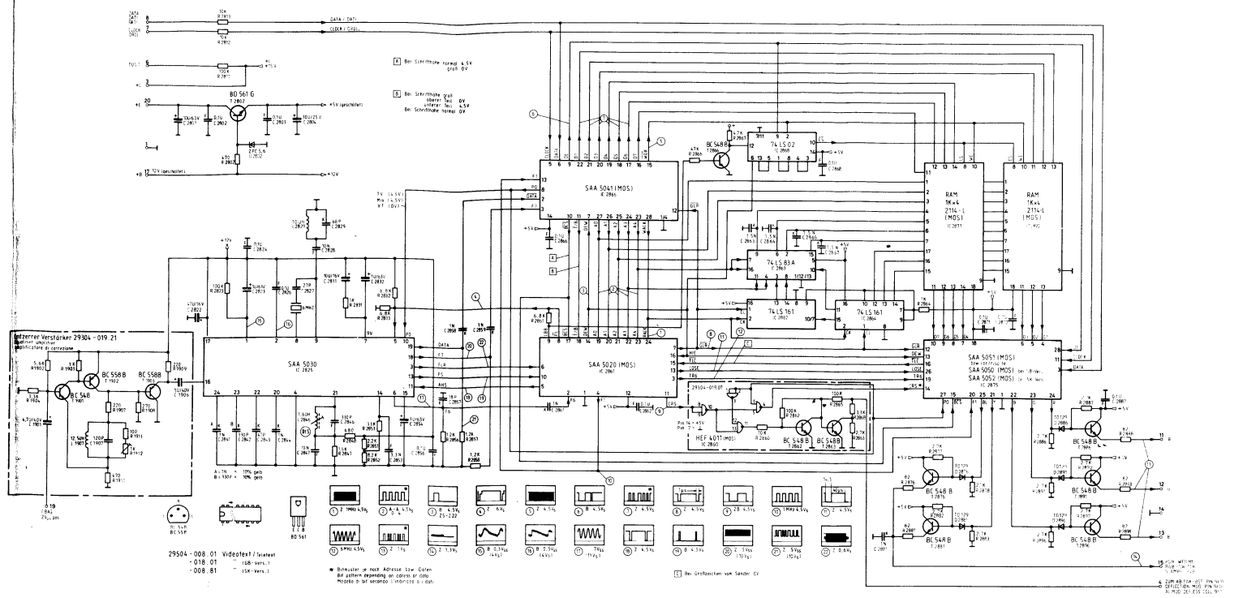
imal.
contrast and max. contrast
e nominale e contr. al massimo.

Anpassungsabgleich bei Austausch der Steckkarte
Matching alignment necessary when replacing the plug-in board
Taratura di adattamento dopo la sostituzione di una scheda ad innesto

1) Weißabgleich
   – FuBK-Testbild einspeisen
   – ◕ min, ☼ nom, ◑ max einstellen
   – Regler V_R und V_B so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind.
2) Sperrpunktabgleich
   Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt.
   Kontrolle des Sperrpunkts (Oszilloskop erforderlich).
   – FuBK-Testbild einspeisen
   – Weißabgleich kontrollieren
   – ◕ min, ☼ nom, ◑ min einstellen
   – Tastkopf an den Kollektoren der Transistoren T 2547, T 2567, T 2587 anhängen und die Schwarzwerte der 8stufigen Grautreppe notieren.
   – Tastkopf an den Kollektor desjenigen Transistors einhängen, dessen Schwarzwert den höchsten Wert hat und mit G2-Regler auf 165 V einstellen.
   Richtwerte für die G2-Spannung:
   – bei Geräten ≦ 20″: ca. 550 V
   – bei Geräten > 20″: ca. 650 V
3) Einstellungen im Farbkanal
   – FuBK-Testbild einspeisen
   – ◕ nom, ☼ nom, ◑ nom einstellen
   – Am IC TDA 3562 A Pin 1 mit Pin 5 und Pin 24 mit Pin 25 kurzschließen.
   – Mit Trimmer 2523 die durchlaufenden Farbbalken zum Stehen bringen, Kurzschlußbrücken entfernen.
   – Tastkopf am Pin 17 des IC TDA 3562 A einhängen.
   Mit Regler BP und Spule LZ die Doppelbilder des -(B-y)-Signals zur Deckung bringen.

1) White level adjustment
   – Inject colour bar test pattern
   – Set ◕ to minimum, nominal ☼, ◑ to maximum
   – Adjust V_R and V_B controls so that no colouration is visible in the grey values
2) Cut-off point adjustment
   A manual adjustment is not possible as the plug-in circuit board is provided with an automatic dark current control.
   Checking the cut-off point (oscilloscope required).
   – Inject colour bar test pattern
   – Check white level adjustment
   – Set ◕ to minimum, nominal ☼, ◑ to minimum.
   – Attach probe to the collectors of the transistors T 2547, T 2567, T 2587 and make a note of the black levels of the 8-stage grey staircase
   – Attach probe to the collector of the transistor which has the highest black level and adjust to 165 V with G2 control.
   Standard values for the G2 voltage:
   – for sets ≦ 20″: approx. 550 V
   – for sets > 20″: approx. 650 V
3) Colour oscillator and PAL adjustments
   – Inject colour bar test pattern
   – Adjust to ◕, ☼, ◑ suit view conditions.
   – On the IC TDA 3562 A, short circuit pin 1 with pin 5 and pin 24 with 25.
   – With trimmer 2523 adjust the until colours are correct. Remove short circuits.
   – Attach probe to pin 17 of the IC TDA 3562 A.
   – With control BP and coil LZ, adjust the double images of the -(B-Y) signal to coincide.

1) Taratura del bianco
   – Applicare un monoscopio FuBK
   – Regolare ◕ al minimo, ☼ sul valore nominale ed ◑ al massimo.
   – Con i regolatori V_R e V_B eliminare eventuali macchie di colore visibili su tutta la scala dei grigi.
2) Taratura del punto di blocco
   Una regolazione manuale non è possibile, poiché questa scheda ad innesto incorpora una regolazione automatica della corrente d'oscurità.
   Controllo del punto di blocco (è necessario un oscilloscopio):
   – Applicare un monoscopio FuBK.
   – Controllare la taratura del bianco.
   – Regolare ◕ al minimo, ☼ sul valore nominale ed ◑ al minimo.
   – Collegare la sonda dell'oscilloscopio ai collettori dei transistori T 2547, T 2567 e T 2587 ed annotare i valori del nero della scala dei grigi.
   – Collegare la sonda dell'oscilloscopio al collettore del transistore che ha il maggior valore del nero e regolarlo su 165 V con il regolatore G2.
   Valori orientativi per la tensione G2:
   – per apparecchi ≦ 20″: ca. 550 V
   – per apparecchi > 20″: ca. 650 V
3) Regolazioni dell'oscillatore colore e PAL
   – Applicare un monoscopio FuBK.
   – Regolare ◕, ☼ ed ◑ sul valore nominale.
   – Cortocircuitare i terminali 1 e 5 ed i terminali 24 e 25 dell'IC TDA 3562 A.
   – Fermare le barre colorate scorrevoli con il trimmer 2523 e togliere i cortocircuiti.
   – Collegare la sonda dell'oscilloscopio al terminale 17 dell'IC TDA 3562 A.
   Con il regolatore BP e la bobina LZ portare a copertura le immagini doppie del segnale -(B-y).



Anpassungsabgleich bei Austausch der Steckkarte
Matching alignment necessary when replacing the plug-in board
Taratura di adattamento dopo la sostituzione di una scheda ad innesto

SAA 5030
DATA = Data
F 7 = Clock
FLR = Fast line reset
FS = Field sync.
PO = Picture on
AHS = After hours sync.
F 6 = 6 MHz clock

SAA 5041
F 1 = Read address clock
Clock = Remote control Clock
Data = Remote control Data
DE = Display enable
D_1-D_7 = Data out to page memory
Wok = Write o. k.
BCS = Big character select
T/B = Top/bottom
DEW = Data entry window
A_0-A_4 = Address out to memory
WACK = Write address clock

2114 L
CS = Chip select
WE = Write enable

SAA 5051
TLC = Tranamitter large character
CRS = Character rounding select
TR 6 = 6 MHz input
LOSE = Load output shift register enable
BL = Blanking output
Y = Monochrome video output
B = Blue output
G = Green output
R = Red output

74 LS 161
CL = Clear
CK = Clock

SAA 5050
CBB = Colour burst blanking
PL = Phase lock output
RACK = 1 MHz clock
GLR = General line reset

Behelfsjustierung der Datentakt-Schwingkreisspule

Die Datentakt-Schwingkreisspule (L 2846) bildet zusammen mit C 2846 einen Parallelschwingkreis mit hoher Güte; dieser Schwingkreis wird zur Filterung schmaler Impulse, die aus den Flanken des Videotext-Datensignals gewonnen werden, verwendet. Mit Hilfe des internen Taktgenerators der Schaltung SAA 5030 wird ein zu den Videotext-Daten synchroner Datentakt erzeugt.

Zur Justierung der Datentakt-Schwingkreisspule ist zunächst ein Fernsehsender mit Videotext-Datensignalen einzustellen. Es soll nach Möglichkeit ein Signal sein, das gut empfangen wird und keine Reflexionen (Echos) aufweist.

Die Seite 199 (Clock-Cracker) wird angewählt und das HF-Signal soweit abgeschwächt bis die Fehlerschwelle erreicht ist, d.h. bis die ersten falschen Zeichen auf dem Schirm erscheinen. Die Induktivität der Datentakt-Schwingkreisspule L 2846 wird nun solange verstellt bis ein Fehlerminimum oder Fehlerfreiheit erreicht ist. Bei Fehlerfreiheit wird nun nochmals bis zur Fehlerschwelle abgeschwächt und auf Fehlerminimum abgeglichen. Dieser Vorgang wird solange wiederholt bis sich ein eindeutiges Fehlerminimum eingestellt hat.

Während des Abgleiches ist es notwendig, die Seite 199 ständig neu anzuwählen, da nur so die Seite neu eingelesen wird und eine Beurteilung der Fehlerschwelle möglich ist.

Der Einsteller R 1912 steht bei Auslieferung auf Linksanschlag (kleinste Höhenanhebung, ca. 2 dB). Treten trotz einwandfreiem Antennensignal und korrekt abgeglichener Spule L 2846 noch Zeichenfehler auf, R 1912 langsam nach rechts verstellen, bis Fehler verschwinden. Nicht weiterdrehen, da Fehlerhäufigkeit wieder zunehmen kann.

Coarse adjustment of the Data Clock-Pulse Oscillator Coil

The data clock-pulse oscillator coil (L 2846), along with C 2846, forms a high-Q parallel tuned circuit. This circuit is used for filtering narrow pulses which are obtained from the edges of the teletext data signal. The internal clock generator in the SAA 5030 is used to generate a data clock-pulse which is synchronous with the Teletext data.

To adjust the data clock-pulse oscillator coil the set should first be tuned to a transmitter broadcasting Teletext data. If possible the reception of the signal should be good and should not exhibit any reflections (ghosts).

Page 199 (Clock-Cracker) is selected and the RF signal attenuated until the error threshold is reached, ie: until the first incorrect symbols appear on the screen. The inductance of the data clock-pulse oscillator coil L 2846 is now adjusted until minimum error level or freedom from errors is achieved. If errors are absent, the attenuation is again adjusted to the error threshold and then set for minimum error. This procedure is repeated until a clear minimum error level is achieved.

Page 199 must always be selected anew during the adjustment, as only this effects a new read-in of the page making it possible to evaluate the error level.

The control R 1912 is set in the fully anticlockwise position when the unit is delivered (smallest treble boost: approx. 2 dB). If, with a perfect aerial signal and the coil L 2846 correctly adjusted, character faults still occur, turn R 1912 slowly clockwise until the faults disappear. Do not turn R 1912 up any further as error rate may increase again.

Regolazione provvisoria della bobina del cir oscillatore del clock dati

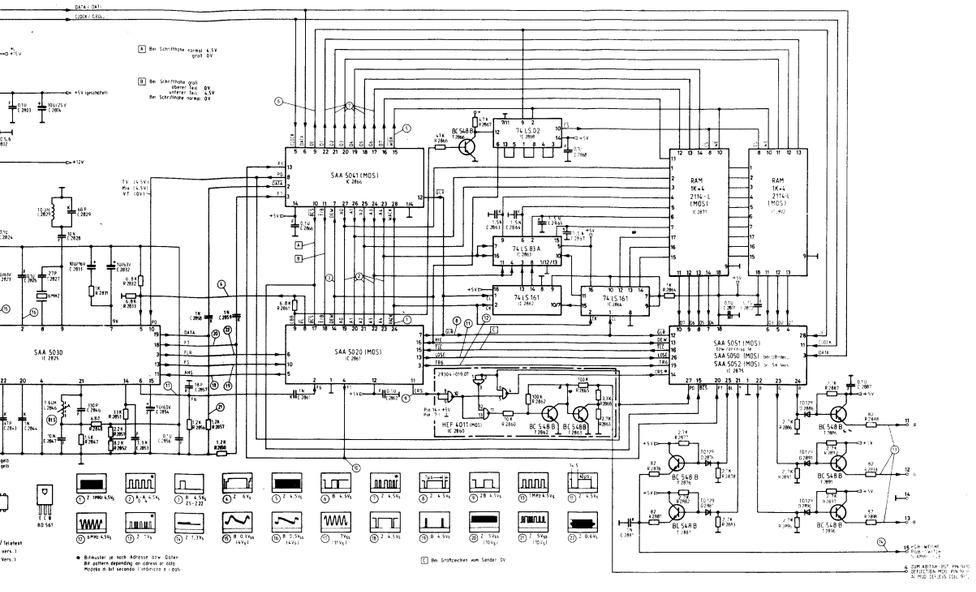
La bobina del circuito oscillatore del clock dati unitamente ad C 2846 un circuito oscillatore pa vato Q; questo circuito oscillatore serve per «i impulsi stretti che vengono generati dai fianchi d del teletext. Con l'ausilio del generatore interno circuito SAA 5030 viene ricavato un clock dati con i dati del teletext.

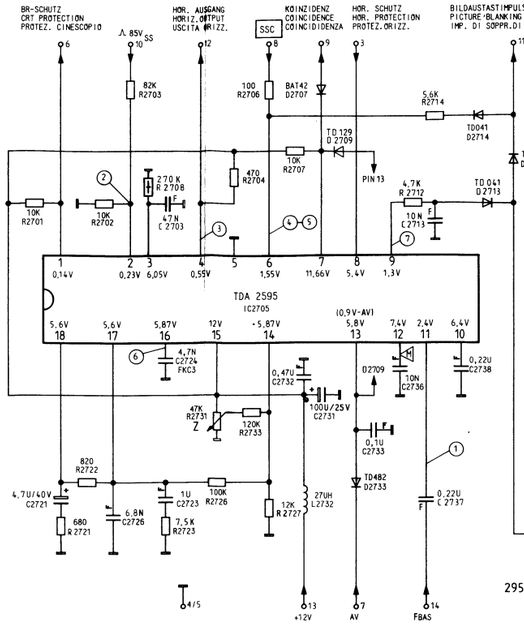
Per la regolazione della bobina del circuito oscill dati, sintonizzarsi su una stazione TV con segnal trattarsi, a seconda delle possibilità, di un segna riflessioni (eco).

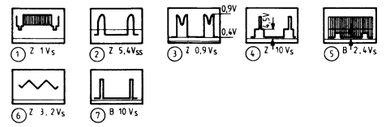
Selezionare la pagina 199 (Clock-Cracker) e segnale AF finchè si raggiunge la soglia degli er che sullo schermo appaiono i primi caratteri erra della bobina del circuito oscillatore del clock da regolata finchè si raggiunge un minimo di errori completa degli stessi. In assenza completa di ancora fino alla soglia degli errori e tarare nuo minimo di errori. Questo procedimento viene quando si raggiunge un minimo evidente di err

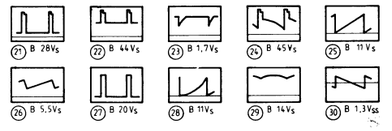
Durante la taratura è necessario selezionare ri pagina 199, poiché solo così è possibile una nuo della pagina ed una valutazione della soglia de

Il regolatore R 1912 viene fornito col cursore gi mente all'estrema sinistra (minima esaltazione quenze, ca. 2 dB). Se si manifestano errori di ostante un perfetto segnale d'antenna ed una ta della bobina L 2846, girare lentamente il curs verso destra fino ad eliminare gli errori. Non gira può riaumentare la presenza degli errori.









SAA 5030
- **DATA** – Data
- **F 7** – Clock
- **FLR** – Fast line reset
- **FS** – Field sync.
- **PO** – Picture on
- **AHB** – After hours sync.
- **F 8** – 6 MHz clock

SAA 5041
- **F 1** – Read address clock
- **Clock** – Remote control Clock
- **Data** – Remote control Data
- **DE** – Display enable
- **D_0-D_7** – Data out to page memory
- **Wok** – Write o. k.
- **BCS** – Big character select
- **T/B** – Top/bottom
- **DEW** – Data entry window
- **A_0-A_4** – Address out to memory
- **WACK** – Write address clock

2114 L
- **CS** – Chip select
- **WE** – Write enable

SAA 5051
- **TLC** – Transmitter large character
- **CRS** – Character rounding select
- **TR 6** – 6 MHz input
- **LOSE** – Load output shift register enable
- **BL** – Blanking output
- **Y** – Monochrome video output
- **B** – Blue output
- **G** – Green output
- **R** – Red output

74 LS 161
- **CL** – Clear
- **CK** – Clock

SAA 5050
- **CBB** – Colour burst blanking
- **PL** – Phase lock output
- **RACK** – 1 MHz clock
- **GLR** – General line reset

vingkreisspule

46) bildet zusammen
nit hoher Güte; dieser
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wonnen werden, ver-
erators der Schaltung
en synchroner Daten-

reisspule ist zunächst
signalen einzustellen.
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Coarse adjustment of the Data Clock-Pulse Oscillator Coil

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To adjust the data clock-pulse oscillator coil the set should first be tuned to a transmitter broadcasting Teletext data. If possible the reception of the signal should be good and should not exhibit any reflections (ghosts).

Page 199 (Clock-Cracker) is selected and the RF signal attenuated until the error threshold is reached, ie: until the first incorrect symbols appear on the screen. The inductance of the data clock-pulse oscillator coil L 2846 is now adjusted until minimum error level or freedom from errors is achieved. If errors are absent, the attenuation is again adjusted to the error threshold and then set for minimum error. This procedure is repeated until a clear minimum error level is achieved.

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The control R 1912 is set in the fully anticlockwise position when the unit is delivered (smallest treble boost: approx. 2 dB). If, with a perfect aerial signal and the coil L 2846 correctly adjusted, character faults still occur, turn R 1912 slowly clockwise until the faults disappear. Do not turn R 1912 up any further as error rate may increase again.

Regolazione provvisoria della bobina del circuito oscillatore del clock dati

La bobina del circuito oscillatore del clock dati (L 2846) forma unitamente ad C 2846 un circuito oscillatore parallelo ad elevato Q; questo circuito oscillatore serve per «identificare» gli impulsi stretti che vengono generati dai fianchi del segnale dati del teletext. Con l'ausilio del generatore interno di cadenza del circuito SAA 5030 viene ricavato un clock dati in sincronismo con i dati del teletext.

Per la regolazione della bobina del circuito oscillatore del clock dati, sintonizzarsi su una stazione TV con segnali teletext. Deve trattarsi, a seconda delle possibilità, di un segnale forte e senza riflessioni (eco).

Selezionare la pagina 199 (Clock-Cracker) ed attenuare il segnale AF finchè si raggiunge la soglia degli errori, cioè fino a che sullo schermo appaiono i primi caratteri errati. L'induttanza della bobina del circuito oscillatore del clock dati L 2846 viene regolata finchè si raggiunge un minimo di errori o la mancanza completa degli stessi. In assenza completa di essi, attenuare ancora fino alla soglia degli errori e tarare nuovamente per il minimo di errori. Questo procedimento viene ripetuto fino a quando si raggiunge un minimo evidente di errori.

Durante la taratura è necessario selezionare ripetutamente la pagina 199, poiché solo così è possibile una nuova immissione della pagina ed una valutazione della soglia degli errori.

Il regolatore R 1912 viene fornito col cursore girato completamente all'estrema sinistra (minima esaltazione delle alte frequenze, ca. 2 dB). Se si manifestano errori di carattere, nonostante un perfetto segnale d'antenna ed una taratura corretta della bobina L 2846, girare lentamente il cursore di R 1912 verso destra fino ad eliminare gli errori. Non girarlo oltre poiché può riaumentare la presenza degli errori.

Anpassungsabgleich:
Ggf. Regler OWA und ZB kontrollieren.

Check control OWA and ZB if necessary

Ritoccare evenbte i regolatori OWA e ZB.

MP kurzschließen.
Zeilenoszillator auf Sollfrequenz einstellen. Kurzschluß entfernen.

Short circuit test point marked MP. Adjust control marked Z for stationary picture (as near as possible). Remove short circuit.

Cortocircuitare i punti MP. Regolare l'oscillatore di riga sulla frequenza nominale. Allontanare il cortocircuita.

Bildhöhe so einstellen, daß der Testbildkreis rund ist.

Adjust the field height so that the test card circle is round.

La regolazione dell'altezza del quadro viene effettuata in modo da rendere rotondo il cerchio del monoscopio.

Schirmbild auf gleichmäßige Linearität bringen.

Adjust for overall field linearity.

Portare l'immagine in linearità simmetila.

Regler BF verdrehen, bis das Bild nach unten durchzulaufen beginnt, dann Regler BF so einstellen, daß das Bild sichtbar nach oben einrastet.

Adjust control BF so that the picture starts to roll downwards and then adjust for a stationary picture.

Regolare il regolatore BF finché il quadro comincia a spostarsi verso il basso e poi regolarlo fino a che il quadro effettua la sua ultima variazione da sotto a sopra.